

AMENDMENTS TO THE CLAIMS:

Please cancel Claims 9 and 13 without prejudice to or disclaimer of the subject matter recited therein.

Please amend Claims 1, 3 through 7, and 11 as follows:

1. (Currently Amended) An image processing method for generating a panoramic image from a plurality of images obtained by a respective plurality of image sensing devices, said method comprising:

setting a common coordinate system which can be transformed from individual coordinate systems of ~~a~~ the plurality of image sensing devices;

estimating ~~postures~~ orientation of at least one of the plurality of image sensing devices;

calculating an estimated ~~posture~~ orientation of the common coordinate system using at least one ~~of the~~ estimated ~~posture~~ orientation of the plurality of image sensing devices;

calculating a first correction transform for reducing a shakiness of the common coordinate system using the estimated ~~posture~~ orientation of the common coordinate system;

calculating a second correction ~~transform~~ transforms for reducing a shakiness of each of the plurality of image sensing devices using the first correction transform;

~~applying the corresponding correction transform to transforming~~ a sensed image which is sensed by each of the plurality of image sensing devices based on the second correction transforms; and

composing a panoramic image by joining combining a plurality of the transformed sensed images.

2. (Withdrawn) An image processing method comprising:

setting a common coordinate system which can be transformed from individual coordinate systems of a plurality of image sensing devices;

estimating postures of at least one of the plurality of image sensing devices;

calculating an estimated posture of the common coordinate system using at least one of the estimated posture of the plurality of image sensing devices;

calculating a correction transform for reducing a shakiness of the common coordinate system using the estimated posture of the common coordinate system;

composing a panoramic image by joining a plurality of sensed images, which are sensed by the plurality of image sensing devices; and

applying the correction transform for reducing a shakiness of the common coordinate system to the panoramic image.

3. (Currently Amended) The method according to claim 1, or 2, wherein the first and second correction transforms transform for reducing a shakiness of each of the common coordinate system or the plurality of image sensing devices is a transform for correcting correct roll and pitch angles.

4. (Currently Amended) The method according to claim 1, or 2, wherein the first and second correction transforms transform for reducing a shakiness of each of the common coordinate system or the plurality of image sensing devices is a transform for correcting correct yaw, roll and pitch angles.

5. (Currently Amended) The method according to claim 1, or 2, wherein positions of the plurality of image sensing devices and common coordinate systems are also estimated upon estimating the postures; wherein the step of estimating the orientation of at least one of the plurality of image sensing devices further estimates a position of at least one of the plurality of image sensing devices, and said step of calculating the estimated orientation of the common coordinate system further estimates an estimated position of the common coordinate system.

6. (Currently Amended) The method according to claim 5, wherein the first and second correction transforms transform for reducing a shakiness of each of the common coordinate system and the plurality of image sensing devices is a transform for correcting correct yaw, roll, and pitch angles, and the position.

7. (Currently Amended) An image processing apparatus for generating a panoramic image from a plurality of images obtained by a respective plurality of image sensing devices, said apparatus comprising:

a setting unit adapted to set a common coordinate system which can be transformed from individual coordinate systems of a the plurality of image sensing devices;

an estimation unit adapted to estimate ~~postures~~ orientation of at least one of the plurality of image sensing devices;

a first calculation unit adapted to calculate an estimated ~~posture~~ orientation of the common coordinate system using at least one ~~of the~~ estimated ~~posture~~ orientation of the plurality of image sensing devices;

a second calculation unit adapted to calculate a first correction transform for reducing a shakiness of the common coordinate system using the estimated ~~posture~~ orientation of the common coordinate system;

a third calculation unit adapted to calculate a second correction ~~transform~~ transforms for reducing a shakiness of each of the plurality of image sensing devices using the first correction transform;

~~application unit adapted to apply the corresponding correction transform to a transforming unit adapted to transform~~ a sensed image which is sensed by each of the plurality of image sensing devices based on the second correction transforms; and

a composition unit adapted to compose a panoramic image by joining combining a plurality of the transformed sensed images.

8. (Withdrawn) An image processing apparatus comprising:
setting unit adapted to set a common coordinate system which can be transformed from individual coordinate systems of a plurality of image sensing devices;
estimation unit adapted to estimate postures of at least one of the plurality of image sensing devices;

first calculation unit adapted to calculate an estimated posture of the common coordinate system using at least one of the estimated posture of the plurality of image sensing devices;

second calculation unit adapted to calculate a correction transform for reducing a shakiness of the common coordinate system using the estimated posture of the common coordinate system;

composition unit adapted to compose a panoramic image by joining a plurality of sensed images, which are sensed by the plurality of image sensing devices; and

application unit adapted to apply the correction transform for reducing a shakiness of the common coordinate system to the panoramic image.

9. (Cancelled)

10. (Withdrawn) A computer program for making a computer function as an image processing apparatus of claim 8.

11. (Currently Amended) A computer readable storage medium storing a computer program ~~of claim 9 for effecting an image processing method for generating a panoramic image from a plurality of images obtained by a respective plurality of image sensing devices, said method comprising:~~

~~setting a common coordinate system which can be transformed from individual coordinate systems of the plurality of image sensing devices;~~

estimating orientation of at least one of the plurality of image sensing devices;
calculating an estimated orientation of the common coordinate system using at least
one estimated orientation of the plurality of image sensing devices;
calculating a first correction transform for reducing a shakiness of the common
coordinate system using the estimated orientation of the common coordinate system;
calculating second correction transforms for reducing a shakiness of each of the
plurality of image sensing devices using the first correction transform;
transforming a sensed image which is sensed by each of the plurality of image sensing
devices based on the second correction transforms; and
composing a panoramic image by combining a plurality of the transformed sensed
images.

12. (Withdrawn) A computer readable storage medium storing a computer program of claim 10.

13. (Cancelled)

14. (Withdrawn) An imaging apparatus comprising:
a plurality of image sensing devices;
a processor for composing a stabilized panoramic image; and
a display device for displaying the panoramic image,
wherein said processor composes the panoramic image by performing the steps of:

setting a common coordinate system which can be transformed from individual coordinate systems of the plurality of image sensing devices;

estimating postures of at least one of the plurality of image sensing devices;

calculating an estimated posture of the common coordinate system using at least one of the estimated posture of the plurality of image sensing devices;

calculating a correction transform for reducing a shakiness of the common coordinate system using the estimated posture of the common coordinate system;

composing a panoramic image by joining a plurality of sensed images, which are sensed by the plurality of image sensing devices; and

applying the correction transform for reducing a shakiness of the common coordinate system to the panoramic image in order to compose the stabilized image.